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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,901	03/10/2004	Fred A. Brown	917/198	3383
2101 7590 05/17/2007 BROMBERG & SUNSTEIN LLP 125 SUMMER STREET BOSTON, MA 02110-1618			EXAMINER LAM, THANH	
			ART UNIT 2834	PAPER NUMBER
			MAIL DATE 05/17/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/797,901

Applicant(s)

BROWN, FRED A.

Examiner

Thanh Lam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant should submit an argument regarding 112 rejection that "the term "relative movement" means movement with respect to another object. In other words, the support member and the shaft lower end are moving with respect to one another. For such movement to occur, the support member and the shaft lower end must be moving at different rates." The subject matter is not persuasive. Because the phrases "relative movement" and "move at different rate" are distinct meaning and irrelevant. Furthermore, as recited in claims 3-4, the movable support member is a spherical member that also do not support by the original specification. Therefore, one of ordinary skill in the art would not recognize that. The 112 first rejection is deemed to be proper and sustained.

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1,12,20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The original specification of the application (page 6, the last line, and page 7, the first line) discloses, "Accordingly, during operation, the thrust washers 242 and 244 may rotate at a different rate than that of the shaft 223."

While the amended subject matters introduce new matters as recited in claims 1,12,20 as follows: "a movable support member (340) axially supporting the shaft, the movable support member being movable a rate different than that of the shaft." the specification does not support the features as under-lines in the amendment.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4,6-25,37-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Leuthold et al. (US 5,710,678).

Regarding claims 1, 37,20, Leuthold et al. disclose a motor comprising: a stator (50); a rotor having a shaft (20); a sleeve bearing (80) in contact with the rotor shaft, the sleeve bearing being fixedly secured to the stator; and a movable support member (160) axially supporting the shaft, the movable support member being movable relative to the shaft.

Regarding claims 2,13, 38, Leuthold et al. disclose a housing at least in part

encasing the stator, the housing forming a recess (where the ball 160 seat)for supporting the movable support member.

Regarding claims 3,17,39, Leuthold et al. disclose the movable support member is a spherical member.

Regarding claims 4,21, Leuthold et al. disclose the spherical member is a ball bearing.

Regarding claim 6, 40,Leuthold et al. disclose a retaining washer about the shaft.

Regarding claims 7, Leuthold et al. disclose the shaft has a lower end, the retaining washer being located between the lower end of the shaft and the sleeve bearing.

Regarding claims 8, 23,41, Leuthold et al. disclose a rotor hub (22) coupled to the shaft, the rotor hub being spaced from the sleeve bearing.

Regarding claims 9,16,24, 42, Leuthold et al. disclose the rotor includes a rotor magnet (60), the rotor magnet being oriented with the stator to bias the rotor toward the movable support member.

Regarding claims 10, Leuthold et al. disclose the movable support member contacts the shaft when the motor is right side up and when the motor is upside down.

Regarding claims 11,19, 25,43, Leuthold et al. disclose the center of gravity of the rotor coincides with an opening in the sleeve bearing that accommodates the shaft.

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Regarding claims 12, Leuthold et al. disclose a motor comprising: a stator; a rotor having a shaft that is rotatably coupled with the stator; and a movable support member (160) supporting the weight of the rotor, the movable support member being movable relative to the shaft.

Regarding claims 14, Leuthold et al. disclose a sleeve bearing rotatably coupled with the shaft.

Regarding claims 15, Leuthold et al. disclose the rotor includes blades for moving air.

Regarding claims 18, Leuthold et al. disclose the stator has DC commutation circuitry.

Regarding claims 22, Leuthold et al. disclose a housing encasing the stator, the housing forming a recess for supporting the movable means for axially supporting.

3. Claims 1,5 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Slack et al. (GB 2083953 A).

Regarding claims 1 and 12, Slack et al. disclose a motor comprising: a stator (14); a rotor (22) having a shaft (18); a sleeve bearing (17) in contact with the rotor shaft, the sleeve bearing being fixedly secured to the stator; and a movable support member (31) axially supporting the shaft or the weight of the rotor, the movable support member being movable at a rate different (due to free moving of the ball 31 and the rotor shaft would move at a rate different from each other) than that of the shaft.

Regarding claim 5, Slack disclose including a housing (the integral of 12 and 28) at least in part encasing the stator (14), the housing forming a recess (just the conical

groove at bottom of the recess 30 at shown in fig. 1) for supporting the movable support member, wherein the moveable support member is a spherical member and the recess has a depth less than a radius of the spherical member.

### ***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh Lam whose telephone number is (571) 272-2026. The examiner can normally be reached on t-f 9-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren E. Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thanh Lam  
Primary Examiner  
Art Unit 2834

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